

31

Notice of Allowability

Application No.

10/809,471

Examiner

Alicia M. Harrington

Applicant(s)

CHMIELEWSKI ET AL.

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 9/19/07.
2. ☒ The allowed claim(s) is/are 3-7 and 9-19.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

Drawings

The drawings were received on 9/19/07. These drawings are acceptable.

Allowable Subject Matter

Claims 3-7,9-19 are allowed.

The following is an examiner's statement of reasons for allowance: Prior art fails to teach an eye tracking system comprising a horizontal line camera, vertical line camera, a processor and a beam splitter configured to reflect a portion of an image of the eye onto one of the horizontal line camera and the vertical line camera and to pass a portion of the image of the eye onto the other one of the cameras as claimed in line 3; an optical element configured to optically focus an image of eye onto at least one of the horizontal and vertical line cameras before the image is captured by the at the least one of the camera as claimed in line 4; further including multiple controlled visible light sources coupled to the processor, wherein the processor controls the multiple light source individually to induce eye motion, and the processor further includes a statistical analyzer for comparing the tracked eye motions of a user to eye motion data derived from user to determine a measure of fitness as claimed in claim 5; a first beam splitter configured to reflect a portion of an image of the eye onto the horizontal line camera; a second beam splitter configured to reflect a portion of the image of the eye onto the vertical line camera; wherein the horizontal and vertical line cameras are configured to be outside of a field of view of the eye and the first and second beam splitters are configured to pass a portion of an image of a scene in the field of view of the eye to the

eye as claimed in claim 6; at least one infrared illuminator configured to illuminate the eye as images are being captured by the horizontal and vertical line cameras, the at least one infrared illuminator and the horizontal and vertical line cameras being controlled by the processor to control a rate at which sampled images are obtained from the horizontal and vertical line imagers as claimed in claim 7; a visible light illuminator configured to illuminate the eye as images are being captured by the horizontal and vertical line cameras, the visible light illuminator being controlled by the processor to induce contraction of the iris of the eye; and a pupil size monitor, in the processor, for tracking changes in size of the pupil of the eye in response to illumination of the eye in response to the visible light illuminator as claimed in claim 9; Regarding claim 11, prior art fails to fairly suggest an eye tracking system for tracking eye motion of a user having first and second eyes comprising a horizontal line camera configured to capture a horizontal image of at least a portion of the first eye of the user and a vertical line camera configured to capture a vertical image of at least a portion of the second eye of the user where the processor processes signal from horizontal and vertical line images of the eye to track motion of the eye as claimed.

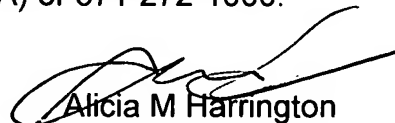
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M. Harrington whose telephone number is 571 272 2330. The examiner can normally be reached on Monday - Friday 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 571 272 2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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Primary Examiner
Art Unit 2873

AMH